

CLAIMS

Sub
A1 1. A system for providing traffic information
to a plurality of mobile users connected to a network,
5 comprising:

- 10 (a) a plurality of traffic monitors, each said
traffic monitor comprising at least a
detector and a transmitter, said detector
providing a signal including data
representative of vehicular movement and
said transmitter transmitting said
signals;
- 15 (b) a receiver that receives said signals
transmitted by said traffic monitors; and
- (c) a computer system interconnected with said
receiver and said network;
- 20 (d) a mobile user station connected to a
global positioning system receiver, a
display, and a communicating device; and
- 25 (e) said computer system, in response to a
request for traffic information from one
of said mobile user stations, providing in
response thereto to said one of said
mobile user stations traffic information
representative of said signals transmitted
by said traffic monitors.

2. The system of claim 1 wherein said traffic
information transmitted by said computer system is
30 displayed graphically on said display.

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C2 3. The system of claim 2 wherein said traffic
information is displayed together with a video image.

35 4. The system of claim 2 wherein said traffic
information is displayed with a text message.

~~5. The system of claim 2 wherein said computer system has a map database, and said computer system, in response to said request for information, transmits map information representative of a portion of said map database, and said map information representative of said map database is displayed graphically together with said traffic information.~~

4. The system of claim 1 wherein said traffic detector detects vehicular speed.

5. The system of claim 1 wherein at least one of said transmitters transmits directly to said receiver.

6. The system of claim 1 wherein at least one of said transmitters transmits to another traffic monitor.

7. The system of claim 1 wherein at least one of said traffic monitors includes a video camera.

8. The system of claim 1 wherein said detector is a video camera.

9. The system of claim 1 wherein said user provides latitude and longitude information to said computer system.

10. The system of claim 1 wherein said computer system selects said traffic information to provide to said mobile user station based on a signal received from said global positioning system receiver.

11. The system of claim 10 wherein said computer system maintains a traffic information database containing data representative of traffic at a plurality of locations and updates said traffic information

database in response to signals received from said mobile user station.

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14. The system of claim 11 wherein said mobile
5 user station displays both the location of said mobile user station and traffic information graphically on said display.

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15. The system of claim 12 wherein said mobile
10 user station has an input mechanism to select a mode in which traffic information is shown on said display.

sub 12
16. A system for providing traffic information
15 to a plurality of mobile users connected to a network, comprising:

- (a) a plurality of vehicles, each said vehicle comprising at least a mobile user station, a global positioning system receiver and a transmitter, said mobile user station providing a signal including data representative of a location of said mobile user station and at least one of a speed of said vehicle and an identification code of said mobile user station and said transmitter transmitting said signal;
- (b) a receiver that receives said signals transmitted by said user stations; and
- (c) a computer system interconnected with said receiver and said network, said computer system, in response to a request for information from one of said mobile user stations, providing in response thereto to said one of said mobile user stations information representative of said signals transmitted by said mobile user stations.

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~~24~~¹⁵. The system of claim ~~19~~ wherein said computer system screens data provided by said mobile user stations to determine before updating said traffic information database.

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~~25~~. A system for providing traffic information to a plurality of mobile users connected to a network, comprising:

- 10 (a) a plurality of mobile user stations, each mobile user station being associated with a display, a global positioning system receiver and a communicating device to allow each of said mobile user stations to send and receive signals;
- 15 (b) a computer system interconnected with another communicating device and a network, said computer system being capable of sending and receiving signals to and from said mobile user stations;
- 20 (c) said computer system including a map database and a traffic information database, said traffic information database containing data representative of traffic at a plurality of locations;
- 25 (d) at least one of said mobile user stations providing a request to said computer system for information together with a respective geographic location of said one of said mobile user stations, and in response thereto, said computer system providing to said one of said mobile user stations information representative of selected portions of said map database and selected portions of said traffic
- 30 information database based on said respective geographic location of said one of said mobile user stations; and
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5 (e) said one of said mobile user stations displaying graphically on said display information representative of said selected portions of said map database and said selected portions of said traffic information database.

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26. The system of claim ²¹~~25~~ wherein said computer system is connected to a plurality of traffic
10 monitors, and said traffic information database contains data derived from said traffic monitors.

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27. The system of claim ²¹~~25~~ wherein said computer system updates said traffic information database
15 based on data received from said mobile user stations.

23 ²⁸~~28~~. The system of claim ²²~~26~~ wherein said computer system updates said traffic information database
20 based on data received from said mobile user stations.

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29. The system of claim ²³~~28~~ wherein said computer system compares data from said mobile user
stations with said data derived from said traffic
monitors before updating said traffic information
25 database.

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30. The system of claim ²¹~~25~~ wherein said map database contains longitude and latitude information for locations within said database.

30 27. The system of claim ²⁶~~30~~ wherein said traffic information database and map database are integrated using said longitude and latitude information.

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32. The system of claim ²⁷~~31~~ wherein each said mobile user station provides longitude and latitude information to said computer system.

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28. The system of claim ²¹28 wherein said computer system transmits information which is displayed as an information banner on said display.

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29. The system of claim ²¹29 wherein said mobile user stations each have an input mechanism for selecting the mode of displaying information on said display.

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30. The system of claim ²¹30 wherein said location of said one of said mobile user stations is displayed graphically.

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31. The system of claim ³¹31 wherein said displayed location of said one of said mobile user stations changes based on movement of said mobile user station.

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32. The system of claim ²¹32 wherein said computer system screens data provided by said mobile user stations to determine whether said data corresponds to actual traffic conditions.

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33. The system of claim ²¹33 wherein said computer system compares data provided from said one of said mobile user stations with said map database before updating said traffic information database.